

strip of electrical resistance mentioned in the specification is merely discussed as being the source of the heating element 44. There is no requirement that the elongated strip of electrical resistance be shown in the drawings since the heating element 44 is shown, identified and claimed, but the elongated strip is not claimed. With respect to the set of washers indicated by the Examiner as being missing from the drawings, Figure 4 illustrates the washers positioned on both sides of vertical wall 68. Also, the specification has been amended to change the term "air filter" to air heater. Therefore, it is believed that this objection to the drawings has been overcome.

Claim 15 stands objected to for including the terms "first surface" and "second surface" instead of the terms preferred by the Examiner, specifically, "bottom surface" and "top surface" respectively. In response, claim 15 has been amended to consistently use the terms "first" and "second". Applicant's representative asserts that the use of the terms "first" and "second" is proper and consistent with the specification and drawings. It is respectfully requested that this objection to claim 15 has been overcome.

Claims 6-7 and 19 stand rejected under 35 U.S.C. §112, second paragraph, as being indefinite for including terms which lack antecedent basis. In response, claims 6, 7 and 19 have been amended to provide antecedent basis for the terms indicated by the Examiner. Thus, it is respectfully requested that the present rejection of claims 6-7 and 19 has been overcome and therefore should be withdrawn.

Claims 1-4 stand rejected under 35 U.S.C. §102(b) as being anticipated by Tanaka et al. By this amendment, independent claim 1 has been amended to clarify the present invention. As a result, Applicant believes newly amended

independent claim 1 is neither anticipated by, nor rendered obvious by, any references of record.

Applicant's representative met with the Examiner on January 9, 1997 to discuss the distinctions between the claimed invention and the prior art. Initially, Applicant's representative pointed out that the present invention as recited in claim 1 is directed to an intake air heater which is capable of being mounted in an intake air manifold formed integrally in a cylinder head. The intake air heater includes both a heater frame member for attachment to the cylinder head and a heating element connected to the frame member, wherein the heating element is specifically positioned within the integral intake air manifold formed in the cylinder head. Applicant's representative pointed out that the present invention reduces the packaging size of the engine by integrating both the intake air heater and the intake air manifold into the cylinder head thus avoiding the need for a separate, large housing mounted along the air intake conduit. As a result, the present invention provides a simple, inexpensive intake air heater which can be easily retrofitted on an existing engine while minimizing the size of the engine. Subsequently, Applicant's representative pointed out that no reference cited by the Examiner suggests positioning an air heater in an intake air manifold formed integrally in a cylinder head. Specifically, with respect to the Tanaka et al. reference, the Examiner appeared to agree that Tanaka et al. only disclosed an air heater positioned upstream of an intake air manifold formed separately from a cylinder head and, therefore, does not suggest an air heater positioned within an integral intake air manifold formed in a cylinder head. In an effort to clarify the present invention, Applicant's representative proposed amendments to independent claim 1 which clarify the positioning of the air heater relative to the cylinder head. As a result, it is clear that there is no suggestion in Tanaka et al. to position an

intake air heater within an integral intake air manifold formed integrally in a cylinder head as recited in independent claim 1.

Accordingly, reconsideration and withdrawal of the rejection of independent claim 1 under 35 U.S.C. §102 is in order and respectfully requested. Also, Applicant respectfully submits that dependent claims 2-4 are likewise allowable in that they ultimately depend on allowable base claim 1.

Claim 5 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Tanaka et al. in view of Berg. The Berg reference merely suggests a low profile gasket heater positioned along an air delivery conduit between a throttle body means and an intake air manifold. Berg nowhere suggests that the intake air manifold is formed integrally in a cylinder head nor that an air heater may be positioned in an integral intake air manifold. Therefore, Berg fails to make up the shortcomings of the Tanaka et al. reference as discussed hereinabove. Accordingly, reconsideration and withdrawal of the rejection of claim 5 under 35 U.S.C. §103 is in order and respectfully requested.

Claims 6-8, 10-12, 14 and 19 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Cailey in view of Tanaka et al. Independent claim 6 is directed to an intake air delivery assembly including a cylinder head having an integral intake manifold chamber formed therein and an intake air heater means mounted at least partially in the integral intake manifold chamber. During the interview, Applicant's representative pointed out, and the Examiner appeared to agree, that Cailey merely discloses a cylinder head and a separate air intake manifold mounted on the cylinder head. Cailey nowhere suggests the use of an air heater. Thus, Cailey could not make up the shortcomings of the Tanaka et al. reference as discussed hereinabove. Accordingly, reconsideration and withdrawal of the rejection of claims 6-8, 10-12, 14 and 19 is in order and respectfully

requested. The Examiner indicated that a further search is needed which is directed to an air heater positioned in an integral intake air manifold formed in a cylinder head.

Claims 9, 13 and 20 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Cailey in view of Tanaka et al. and further in view of Berg. However, as set forth hereinabove, Cailey, Tanaka et al. and Berg all fail to disclose an intake air heater at least partially positioned in an integral intake air manifold formed integrally in a cylinder head. Thus, it is respectfully requested that this rejection of claims 9 and 13 be withdrawn as they depend on what is believed to be allowable base claims 1 and 6. Moreover, claim 20 depends on independent claim 15 which is believed to be allowable for the reasons set forth hereinbelow. Moreover, neither Cailey, Tanaka et al. nor Berg disclose a cylinder head having a connector aperture formed in a side surface for receiving an electrical connector for connection to a heating element. Accordingly, withdrawal of this rejection of claim 20 is respectfully requested.

Claims 15-18 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Cailey in view of Tanaka et al. Claim 15 is directed to an intake air delivery assembly including a cylinder head having an integral intake manifold chamber formed therein, an air delivery conduit mounted on the cylinder head and an intake air heater including a flange portion compressively positioned between the air delivery conduit and the cylinder head. The flange portion is specifically designed with a predetermined minimal thickness for minimizing the distance between the air delivery conduit and the cylinder head. Neither Cailey nor Tanaka et al., nor any references of record, suggest an intake air delivery assembly including a heater having a flange portion compressively positioned between an air delivery conduit and a cylinder head having an integral intake manifold chamber. Thus,

no reference suggests such an arrangement wherein the flange portion is specifically designed with a predetermined minimal thickness for minimizing the distance between the conduit and the cylinder head. Accordingly, reconsideration and withdrawal of the present rejection of claim 15 is in order and respectfully requested. Moreover, it is believed that dependent claims 16-18 are likewise allowable in that they depend from what is believed to be allowable base claim 15.

In view of the foregoing, it is submitted that the present application is in condition for allowance and a notice to that effect is respectfully requested. However, if the Examiner deems that any issue remains after considering this response, he is invited to call the undersigned to expedite the prosecution and work out any such issue by telephone.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Tim L. Brackett, Jr.', is written over a horizontal line.

Tim L. Brackett, Jr.
Registration No. 36,092

Sixbey, Friedman, Leedom & Ferguson, P.C.
2010 Corporate Ridge, Suite 600
McLean, Virginia 22102
(703) 790-9110